



# OIL ANALYSIS REPORT

Sample Rating Trend

**WEAR**



Area  
**MAGENTA NTX [200007685]**  
 Machine Id  
**16WEA91118 - E-23**  
 Component  
**Wind Turbine Gearbox**  
 Fluid  
**SHELL OMALA S5 WIND 320 (--- LTR)**



## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

### Wear

The iron level is abnormal. All other component wear rates are normal.

### Contamination

There is a high amount of particulates present in the oil.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>NX012265</b>	---	---
Sample Date	Client Info	<b>29 Feb 2024</b>	---	---
Machine Age	hrs Client Info	<b>0</b>	---	---
Oil Age	hrs Client Info	<b>0</b>	---	---
Oil Changed	Client Info	<b>N/A</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184 >50	<b>20</b>	---	---
Iron	ppm ASTM D5185m >30	<b>▲ 37</b>	---	---
Chromium	ppm ASTM D5185m >3	<b>&lt;1</b>	---	---
Nickel	ppm ASTM D5185m >3	<b>0</b>	---	---
Titanium	ppm ASTM D5185m >10	<b>0</b>	---	---
Silver	ppm ASTM D5185m	<b>0</b>	---	---
Aluminum	ppm ASTM D5185m >30	<b>0</b>	---	---
Lead	ppm ASTM D5185m >15	<b>0</b>	---	---
Copper	ppm ASTM D5185m >10	<b>5</b>	---	---
Tin	ppm ASTM D5185m >10	<b>&lt;1</b>	---	---
Vanadium	ppm ASTM D5185m	<b>0</b>	---	---
Cadmium	ppm ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	<b>0</b>	---	---
Barium	ppm ASTM D5185m	<b>0</b>	---	---
Molybdenum	ppm ASTM D5185m	<b>&lt;1</b>	---	---
Manganese	ppm ASTM D5185m	<b>&lt;1</b>	---	---
Magnesium	ppm ASTM D5185m	<b>0</b>	---	---
Calcium	ppm ASTM D5185m	<b>&lt;1</b>	---	---
Phosphorus	ppm ASTM D5185m	<b>481</b>	---	---
Zinc	ppm ASTM D5185m	<b>7</b>	---	---
Sulfur	ppm ASTM D5185m	<b>4066</b>	---	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >+15	<b>8</b>	---	---
Sodium	ppm ASTM D5185m	<b>2</b>	---	---
Potassium	ppm ASTM D5185m >20	<b>0</b>	---	---
Water	% ASTM D6304 >0.02	<b>0.004</b>	---	---
ppm Water	ppm ASTM D6304 >200	<b>42</b>	---	---

## FLUID CLEANLINESS

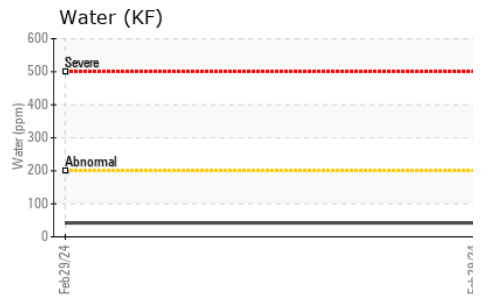
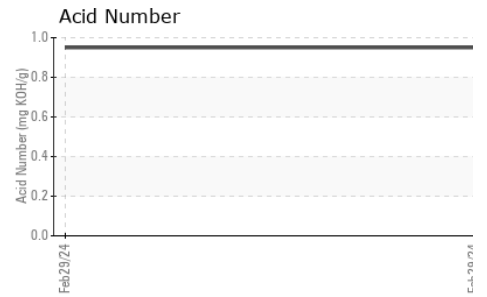
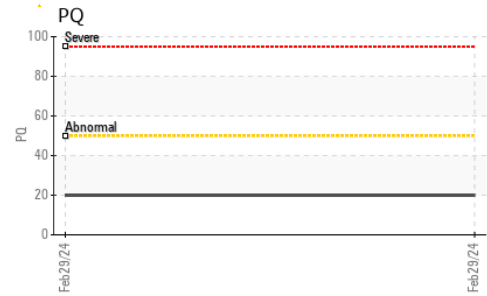
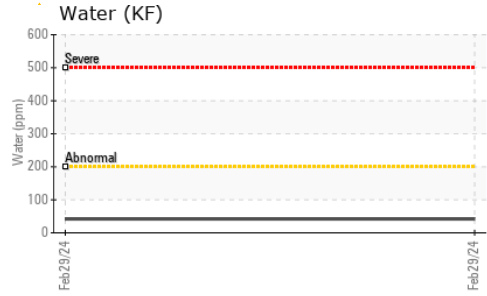
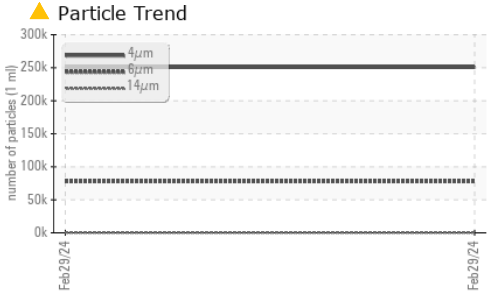
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	<b>250599</b>	---	---
Particles >6µm	ASTM D7647 >1300	<b>▲ 77782</b>	---	---
Particles >14µm	ASTM D7647 >160	<b>▲ 342</b>	---	---
Particles >21µm	ASTM D7647 >40	<b>▲ 41</b>	---	---
Particles >38µm	ASTM D7647 >10	<b>1</b>	---	---
Particles >71µm	ASTM D7647 >3	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c) >17/14	<b>▲ 23/16</b>	---	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D8045	<b>0.95</b>	---	---



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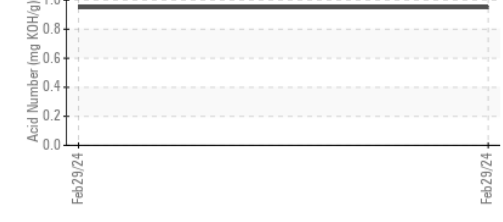
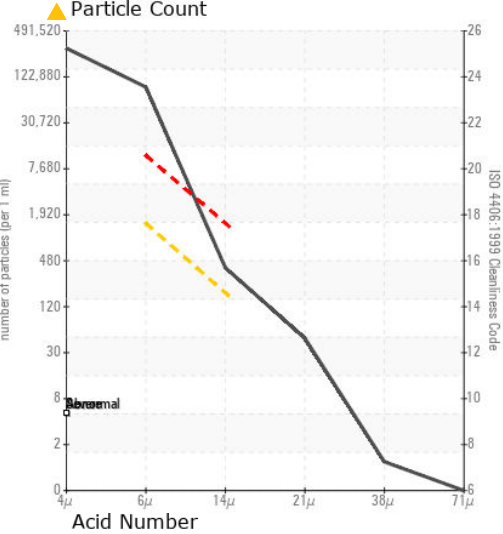
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	LIGHT	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.02	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	320	---	---

### SAMPLE IMAGES

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : NX012265 **Received** : 21 Mar 2024  
**Lab Number** : **06125619** **Tested** : 26 Mar 2024  
**Unique Number** : 10939770 **Diagnosed** : 26 Mar 2024 - Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: KF, PQ, PrtCount )

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To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)